4.2.100 Infrastructure Standards—Transportation

Subsections:

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4.2.105	Public Streets

(A) General Provisions

- (1) All public streets and alleys must be improved as specified in this Code and must be dedicated through the approval of a subdivision plat or by acceptance of a deed approved by the City.
- (2) Functional Classification of Streets. The City's street system consists of streets that are classified as Major and Minor Arterial streets, Major and Minor Collector streets, Local streets and Alleys, consistent with the Springfield Transportation System Plan (Figure 2) and the *Federally Designated Roadway Functional Classification* map, contained in the Regional Transportation Plan. Local Streets include all streets not classified as Arterial or Collector streets.
- (3) New connections to arterials and state highways must be consistent with any designated access management category.
- **(B)** An applicant may be required to prepare a Traffic Impact Study (TIS) to identify potential traffic impacts from proposed development and needed mitigation measures. A TIS is required if any of the following criteria are met:
 - (1) Peak Hour Threshold. If a change in land use or intensification of an existing use generates 100 or more trips during any peak hour as determined by procedures contained in the most recent edition of the Institute of Transportation Engineers Trip Generation Manual, a TIS must be performed by a registered professional engineer.
 - (2) Average Daily Traffic Threshold. If a change in land use or intensification of an existing use generates 1,000 or more trips per day as determined by procedures contained in the most recent edition of the Institute of Transportation Engineers *Trip Generation Manual*. a TIS must be performed by a registered professional engineer.

- (3) Variance and Known Issues Threshold. The Director may determine that a TIS is necessary to support a request for a Variance from the transportation provisions of this code or where traffic safety, street capacity, future planned facility, or multimodal concerns may be associated with the proposed development.
- (4) The nature and extent of the TIS scope is determined by the Director based upon a trip distribution and assignment prepared by the Applicant. At a minimum, locations impacted by more than 20 trips during the identified peak hour must be included in the trip distribution and assignment.
- (5) The Director may modify TIS requirements consistent with applicable local and regional transportation system plans and the intent of this Code when existing conditions make their strict application impractical or inconsistent with accepted site planning or transportation planning principles.
- (C) Minimum street curb-to-curb widths and minimum street right-of-way widths are as specified in Table 4.2.1, unless otherwise indicated in the Springfield Transportation System Plan, an applicable Refinement Plan, Plan District, Master Plan, Conceptual Development Plan, or the adopted bicycle and pedestrian plan; where necessary to achieve right-of-way and street alignment; or as needed to meet site-specific engineering standards, including but not limited to requirements for multi-way boulevard and/or modern roundabout designs. Example street layouts meeting minimum street standards are provided in Figures 4.2.B through 4.2.V for illustrative purposes only. These Figures are intended to demonstrate potential street configurations that meet the requirements.

Table 4.2.1

Minimum Street Right-of-Way and Curb-to-Curb Standards

Fig.	Street Classification	Right-of- Way (1)		Travel Lanes	Travel Lanes Width	Turn Lane Width (2)	Bikeways (3)	Planting Strip and Curb (4)	Sidewalk
4.2 B-D	Major Arterial (5)	100'/92'/84'	76'/69'/60'	4	12'	14' where required	6' both sides	5′	7' both sides
4.2 E- G	Minor Arterial (5)	76′/68′/60′	52'/44'/36'	2	12'	14' where required	6' both sides	5′	7' both sides
4.2 H-J	Major Collector	72'/64'/56'	52'/44'/36'	2	12'	14' where required	6' both sides	5′	5' both sides
4.2 K- M	Minor Collector – Non- Residential Districts (6)	70'/62'/54'	50'/42'/34'	2	11'	13' where required	6' both sides	5′	5' both sides
4.2 N-P	Minor Collector – Residential Districts (6)	58'/50'/42'	38'/30'/22'	2	11′	13' where required	N/A	5′	5' both sides
4.2 Q- S	Local Street <15 percent slope (7)	57'/49'/41'	36'/28'/20'	2	10′	N/A	Not required	5′	5' both sides
4.2 T-V	Local Street ≥15 percent slope (7)	48'/40'/32'	36′/28′/20′	2	10′	N/A	Not required	6" curbs only	5' both sides

Fig.	Street Classification	Right-of- Way (1)		Travel Lanes	Travel Lanes Width	Turn Lane Width (2)	Bikeways (3)	Planting Strip and Curb (4)	Sidewalk
	Cul-de-sac Bulb	83' diameter	70' diameter	N/A	N/A	N/A	N/A	5' around bulb	5' around bulb
	Alley	20′	No curbs, 18' paving width	N/A	N/A		N/A	Not required	Not required

- (1) Minimum right-of-way widths and curb-to-curb widths are listed in this order: Streets with parking on both sides of street/Streets with parking on one side of street/Streets with no on-street parking. Where indicated, parking width is eight feet per side of street. Minimum right-of-way widths and curb-to-curb widths listed above do not include additional right-of-way width and curb-to-curb width required to accommodate a center turn lane or center median.
- (2) When a center turn lane or center median is required to address a significant volume of left-turn traffic or other safety or site-specific engineering concerns, additional right-of-way width and curb-to-curb width is required to accommodate the turn lane and/or center median. Width of the turn lane will be not less than the standard provided in Table 4.2.1 above.
- (3) Bike lanes on one-way streets must be on the right side of the street, except in the case where a left-side bike lane would cause fewer conflicts, and people riding bicycles can return to the right safely.
- (4) The planting strip and curb includes four and a half foot planting strip and six inch curb on both sides of the street, unless otherwise indicated in Table 4.2.1.
- (5) Arterial streets that are Oregon Department of Transportation (ODOT) facilities are not subject to the standards in Table 4.2.1, but must meet ODOT design standards.
- **(6)** Residential land use districts are those listed in SDC 3.2.200. All other land use districts are non-residential for the purposes of Table 4.2.1. Where opposite sides of the street are zoned with residential and non-residential uses, the non-residential standards apply.
- (7) Slope is the average slope of the development area per the calculation in SDC 3.3.520(A). Minimum right-of-way width for local streets includes six inches behind the sidewalk for property pins.

(D) Street Network Standards—General Criteria

- (1) Collector and Arterial Streets. Subject to the standards of this code, the location of collector streets and arterial streets must comply with the Transportation System Plan, including the Conceptual Street Map.
- **Local Streets.** The local street network, which includes pedestrian accessways and multiuse paths, must meet the following standards:
 - (a) The local street network must efficiently and safely accommodate all modes of travel including pedestrians, bicyclists, and emergency service vehicles.
 - **(b)** The local street network must not create excessive travel lengths, particularly for pedestrians and bicyclists.
 - **(c)** Streets must be interconnected to provide for the efficient provision of public and private utilities.
 - (d) Streets must provide connections to and from Neighborhood Activity Centers and other areas that attract high levels of pedestrian and bicycle traffic, or

alternative bicycle or pedestrian facilities must provide connections where street connections are not practical.

- **(e)** The alignment of local streets must minimize impacts to waterways and wetlands, and must follow slope contours where possible.
- (f) The alignment of local streets must enhance the efficiency of the regional collector and arterial street system by balancing traffic volumes on local streets to promote optimum dispersal.
- **(g)** The local street network must provide logical and efficient extensions of the public street system to adjoining properties.

(3) Dead-End Streets

- (a) Dead-end streets must terminate in a cul-de-sac bulb, "hammerhead," or other design that provides adequate vehicular turn-around areas, Public Works access, and pedestrian and bicycle connections as approved by the Director and the Fire Marshal. When development generates additional vehicular trips on an existing dead-end street without a turnaround area, the development must include a turnaround area on the dead-end street that meets the requirements of this subsection.
- (b) A dead-end street, excluding the bulb or other approved vehicular turn-around area, must have a minimum length of 65 feet and must have a maximum length of 400 feet as measured from the nearest curb line of the intersecting street. The right-of-way and paving requirements for cul-de-sac bulbs and other approved vehicular turn-around areas are as specified in Table 4.2.1 of this Code, the Oregon Fire Code, the Development & Public Works Standard Construction Specifications, and the Engineering Design Standards and Procedures Manual.

Where streets that are planned to be through streets are partially constructed during phased development, temporary dead-end streets with temporary vehicular turn-around that meet the requirements for a dead-end fire apparatus access road will be permitted with a maximum length of 600 feet as measured from the nearest curb line of the intersecting street.

(4) Block Length and Block Perimeter

- (a) Block perimeter for all street classifications must not exceed the following maximums, except as provided or exempted elsewhere in this Code or in an applicable Refinement Plan or Plan District:
 - (i) 1,400 feet in Mixed-Use Districts consistent with standards in SDC 3.2.625(E);

- (ii) 2,600 feet in industrial land use districts;
- (iii) 2,400 feet for multiple unit housing development subject to SDC 4.7.380 through 4.7.390; and
- (iv) 1,600 feet in other land use districts.
- **(b)** Block length must not exceed:
 - (i) 600 feet for local street not in industrial zones or that do not serve industrial non-conforming or the maximum block length established in an applicable Refinement Plan or Plan District, whichever is less;
 - (ii) 800 feet for multiple unit housing development subject to SDC 4.7.380 through 4.7.390 or the maximum block length established in an applicable Refinement Plan or Plan District, whichever is less;
 - (iii) 1,000 feet for local streets in industrial zones or that serve industrial nonconforming uses or the maximum block length established in an applicable adopted Refinement Plan or Plan District, whichever is less.
- (c) The Director may authorize a block length or block perimeter that exceeds the applicable maximum specified in this Section. In authorizing a block length or block perimeter that exceeds the above maximum lengths, the Director may establish requirements for interim street connectivity and/or pedestrian accessways consistent with standards in SDC 4.2.160. Where the extension of a public street would create a block length or block perimeter that exceeds the applicable maximum, the block length and block perimeter must be as close as possible to the applicable maximum. The Director will authorize an exception only if the applicant/developer demonstrates that the existence of any of the following conditions justifies the exception:
 - (i) Physical conditions that cannot be mitigated necessitate a block length or block perimeter that is longer than the applicable maximum. These conditions may include topography or the existence of physical features, including, but not limited to: wetlands, ponds, streams, channels, rivers, lakes, steep grades, or a resource under protection by State or Federal law; or
 - (ii) Buildings or other existing development on adjacent lands, including previously subdivided but vacant lots or parcels that physically necessitate a block length or block perimeter that is longer than the applicable maximum, considering the potential for redevelopment; or
 - (iii) Industrial development areas greater than 25 acres pursuant to an adopted Master Plan.

- **(E) Street Network Standards—Needed Housing.** The development of needed housing, as defined in ORS 197.303, must meet the following street network standards, unless the applicant elects review under the general criteria in SDC 4.2.105(D).
 - (1) Collector and Arterial Streets. Subject to the standards of this Code, the location of collector and arterial streets must comply with the Transportation System Plan, including the Conceptual Street Map.
 - **(2)** Local Streets. The local street network must meet the following standards:
 - (a) New local streets, pedestrian accessways, and multiuse paths within a development area must connect to all existing or planned local streets, accessways, and multiuse paths, respectively, including truncated or "stub" streets, accessways, or multiuse paths that abut the development area. For the purposes of this Section, a planned street, accessway, or multiuse path means unimproved dedicated right-of-way; a street or multiuse path adopted in the Transportation System Plan; or a street, accessway, or multiuse path shown in an approved Master Plan, Site Plan, Conceptual Development Plan, or Subdivision Plan.
 - (b) Where there is an existing or planned local street or multiuse path within ¼ mile of the outer boundary of the development area, a new local street or multiuse path must extend to the outer boundary lines of the development area in alignment with the centerline of existing or planned street or multiuse path. The new street or multiuse path and existing or planned street or multiuse path are in alignment if the angle between the projection of the centerlines of both streets is not less than 170 degrees or more than 190 degrees.
 - (c) Local streets spaced no greater than 600 feet apart from centerline to centerline must extend to all undeveloped or underdeveloped land that is adjacent to the development area, zoned or designated for residential or mixed use, and five contiguous gross acres or larger. For the purposes of this Section, "underdeveloped" means lots and parcels that are developed at less than half the minimum residential density required in the underlying land use district.
 - (d) The number of new local street intersections with major collector or arterial streets that provide ingress or egress to the development area must be the smallest number necessary to ensure that not more than 100 dwelling units are attributed to any one intersection with a major collector or arterial street, including via existing local streets that intersect major collector or arterial streets outside the development area. A dwelling unit is attributed to the intersection of a local street and major collector or arterial street that has the smallest travel distance from the centerline of the street at the midpoint of the dwelling unit's frontage to the centerline of the street at the boundary line of the development area.

- (e) Street, accessway, and multiuse path connections to adjacent property under SDC 4.2.105(E)(2)(a) through (2)(d) above are not required where the following barriers physically prevent their construction: railroad right-of-way, limited access highway or freeway right-of-way, existing development, streets that would be unable to meet the slope standards specified in SDC 3.3.525, natural resource protection areas listed in SDC 4.3.117(B), or Historic Landmark Sites or Structures established on the Historic Landmark Inventory according to SDC 3.3.920.
- **(f)** Developments must provide fire apparatus access roads as required by and in compliance with the Oregon Fire Code.
- (3) Cul-de-Sacs and Dead-End Streets. New and existing dead-end streets and culde-sacs must meet the standards for dead-end fire apparatus access roads in the Oregon Fire Code and the following standards:
 - (a) Cul-de-sacs and dead-end streets that are not planned to be through streets are permitted only when physical barriers prevent the construction of through streets or stubbed streets that meet the local street network standards in SDC 4.2.105(E)(2), or the block length and block perimeter standards in SDC 4.2.105(E)(6). Physical barriers are railroad right-of-way, limited access highway or freeway rights-of-way, existing development, streets that would be unable to meet the slope standards specified in SDC 3.3.525, natural resource protection areas listed in SDC 4.3.117(B), or Historic Landmark Sites or Structures established on the Historic Landmark Inventory according to SDC 3.3.920.
 - (b) All cul-de-sacs and dead-end streets, including stubbed streets required under SDC 4.2.105(E)(2)(a) through (2)(c) above, must meet the length standards in SDC 4.2.105(D)(3)(b).
 - (c) A cul-de-sac or dead-end street that is not a stubbed street must include one or more pedestrian accessways or multiuse path connections from the cul-de-sac or dead-end street to an existing or planned street, accessway, or multiuse path when the cul-de-sac or dead end street is within ¼ mile of a Neighborhood Activity Center, as measured in a straight line from the nearest outer boundary of the Neighborhood Activity Center to the centerline of the dead-end street at its terminus or the center point of the cul-de-sac. The accessway or multiuse path must be located in a manner that would shorten the walking and biking distance from the cul-de-sac or dead-end street to the Neighborhood Activity Center as compared to the shortest walking or biking distance without the connection.

An accessway or multiuse path is not required where physical barriers listed under SDC 4.2.105(E)(3)(a) above prevent construction of any accessway or multiuse path under this section, or when no accessway or multiuse path would

decrease the walking or biking distance from the cul-de-sac or dead-end street to the Neighborhood Activity Center.

(4) Block Length and Block Perimeter

- (a) Block perimeter for all local and minor collector streets must not exceed the following maximums:
 - (i) 1,400 feet in Mixed-Use Districts, consistent with standards in SDC 3.2.625(E);
 - (ii) 2,400 feet for multiple unit housing development subject to SDC 4.7.380 through 4.7.390; and
 - (iii) 1,600 feet for all other development and in all other land use districts.
- **(b)** Block length for local streets must not exceed:
 - (i) 800 feet for multiple unit housing development in residential land use districts; and
 - (ii) 600 feet for all residential development other than multiple unit housing development in all land use districts.

(5) Maximum Street Grades

- (a) Street grades must not exceed 8% on major and minor arterial streets, 10% on major and minor collector streets, and 12% on local streets.
- **(b)** Street grades may exceed 12% on local streets subject to a Type 2 approval process, where topographical conditions make it impractical to meet the 12 percent standard, subject to the following requirements:
 - (i) No driveways or intersections are permitted where the street grade exceeds 12%:
 - (ii) No street with a grade of 15% or greater is permitted for a distance more than 200 feet; and
 - (iii) No street grade can exceed 18% for any distance.

(6) Intersections of Streets and Alleys

(a) Angles. Streets and alleys must intersect one another at an angle as close to a right angle (i.e., 90 degrees) as possible. Street intersections must have a

- minimum intersection angle of 80 degrees. All legs of an intersection must meet the above standard for at least 100 feet from the point of intersection of the street centerlines. No more than two streets may intersect at any location (i.e., not creating more than a four-legged intersection) unless at a roundabout.
- (b) Intersection Offsets. Intersections must be offset at least 100 feet on a local street, 200 feet on a minor collector street, and 400 feet on a major collector or arterial street, or the safe stopping sight distance as determined by the AASHTO publication "A Policy on Geometric Design of Highways and Streets," whichever is greater. Offset distance must be measured from the curb or edge of pavement or, where there is no curb, to the closest curb or edge of pavement of the next offset street.

(F) Medians

(1) General. A raised median physically deters vehicles from crossing or entering a median area by way of a raised curb or concrete barrier. Raised medians help avoid crashes caused by crossover traffic, reduce headlight glare distraction, prevent traffic turning left from through lanes, provide refuge for pedestrians crossing the street, and remove turning traffic from through lanes, thereby maintaining efficient and safe traffic flow. Median design and installation must follow the standards in the Manual on Uniform Traffic Control Devices and AASHTO's "A Policy on Geometric Design of Highways and Streets."

(2) Raised Median Width and Size

(a) In addition to the minimum street curb-to-curb and right-of-way standards specified in SDC 4.2.105(C), extra right-of-way width for medians may be required, through a land use decision process, to address known safety issues or fulfill safety and operational needs as specified in this Code or identified in an engineering study.

(b) Elongated Median

- (i) An elongated median intended to deter turning movements must be a minimum of four feet wide and no less than 150 square feet in area. Where a raised median is required on a facility with an existing median area between opposing travel lanes, the new raised median must be the same width as the existing median area minus the distance from the edge line striping required in the Manual on Uniform Traffic Control Devices. Alternatively, in special circumstances where the necessary right-of-way cannot be provided or obtained, medians intended to deter turning movements may be as narrow as two feet wide as approved by the Director through a land use decision process.
- (ii) An elongated median intended as a pedestrian refuge must be a minimum of eight feet wide, and no less than 150 square feet in area.

Alternatively, in special circumstances where the necessary right-of-way cannot be provided or obtained, pedestrian refuge medians may be as narrow as six feet wide as approved by the Director through a land use decision process.

(3) Length of a Raised Median

- (a) Where medians are required to prohibit turns into a specific access, the median must fully cover the access location plus an additional 20 feet on either end. Modifications to median length given site specific needs may be approved by the Director.
- (b) The length of raised medians not intended for pedestrian refuge is determined based on the storage length requirements of a turn lane as determined in a TIS, or based on safety and operational needs of the street first and access second.

(G) Additional Right-of-Way and Street Improvements

- (1) Whenever an existing street of inadequate width is abutting or within a development area requiring Development Approval, dedication of additional right-of-way is required. Whenever street dedication results in right-of-way that does not connect with the City street system, a deed restriction must be recorded with the Lane County Deeds and Records stating that the property will not be built upon until a fully improved street is constructed to serve the property, and connect with the City street system.
- (2) Whenever a proposed land division or development will increase traffic on the City street system and the development site has unimproved street frontage, that street frontage must be fully improved to City specifications in accordance with the following criteria:
 - (a) When fully improved street right-of-way abuts the property line of the subject property, street improvements must be constructed across the entire property frontage.
 - (b) When there is a fully improved partial-width street opposite the frontage of the subject property, street improvements must be constructed across the entire property frontage to provide a full-width street.
 - (c) Where property has frontage on unpaved street right-of-way, or where unpaved street right-of-way extends to a side property boundary, the minimum level of street improvements necessary to provide for the safe and efficient movement of vehicles and pedestrians from/to the proposed development must be constructed.

- (d) Where there is multiple unit housing, commercial, or industrial development at the intersection of a fully improved street and an unimproved street, if access is taken from the unimproved street, the unimproved street frontage must be improved.
- (e) In all other cases in which proposed land division or development will increase traffic on an unimproved street an Improvement Agreement will be required as a condition of Development Approval, postponing improvements until the time that a City street improvement project is initiated.
- (f) Siting accessory structures or other structures not occupied by humans, or changes of use which do not increase parking requirements are not be considered development which increases traffic on the City street system; full street improvement or an Improvement Agreement will not be required.
- (3) An approved performance bond or suitable substitute in a sufficient amount to ensure the completion of all required improvements, including the installation of sidewalks and accessways is required prior to occupancy or Final Plat approval when necessary to ensure compliance with a development agreement.
- (4) Partial-width streets are be permitted only if both of the following approval criteria are met:
 - (a) There is inadequate right-of-way to install a full-width street improvement without changing street alignments; and
 - **(b)** The partial-width street is adequate to carry anticipated traffic loads until adjacent properties are developed and the street is fully improved.
- (5) If the developer bears the full cost of dedicating the necessary right-of-way for and/or constructing partial-width street improvements, the developer may retain a reserve strip subject to the following terms and conditions:
 - (a) The retention of this strip does not constitute either an express or implied agreement by the City:
 - (i) To require an abutting property owner to take access to the street across the reserve strip;
 - (ii) To withhold approval of development and building on abutting property unless the abutting property owner takes access to the street across the reserve strip;
 - (iii) That it will not or cannot prohibit access from abutting properties to the street across the reserve strip.

- (b) Abutting property owners may purchase access rights across the reserve strip by paying to the developer a prorated share of the developer's costs of the fully improved street. The developer must submit actual development costs to the City within six months following street construction. The cost of purchasing access rights across the reserve strip must include the actual construction cost per lineal foot, plus inflation, at a rate not to exceed five percent per year. It is not the City's responsibility to record legal documents.
- (H) Where a development would result in the need to improve a railroad crossing, or an approach to a railroad crossing, the developer must bear the cost for the permitting and improvements. When other property owners are benefited, other equitable means of cost distribution may be approved by the City.

(I) Traffic Control Devices

- (1) All traffic control signs, pavement markings, street name signs, and other traffic control devices must be in conformance with the U.S. Department of Transportation's Manual of Uniform Traffic Control Devices for Streets and Highways (including Oregon supplements), the Engineering Design Standards and Procedures Manual, the Development & Public Works Standard Construction Specifications, and this Code.
- (2) The developer is responsible for providing and installing all traffic control devices and street name signs as necessary to support the proposed development.
- (3) Where a proposed street intersection will result in an immediate need for a traffic control device, the developer bears the cost for the improvements. When other property owners are benefited, other equitable means of cost distribution may be approved by the City as provided in Chapter 3 of the Springfield Municipal Code.
- (J) Bus turn out lanes must be consistent with current standards in the *Engineering Design Standards and Procedures Manual*.
- (K) Street names are assigned as specified in the Springfield Municipal Code.
- **(L)** The Director may require a developer to install traffic calming measures, including, but not limited to, speed tables and mini-roundabouts, to address public safety considerations on roadways.

(M) Special Street Setbacks

- (1) A special street setback is established in the following circumstances:
 - (a) A special street setback is established as provided in Table 4.2.1(A) wherever there is:

- (i) Partially-improved or unimproved street or alley right-of-way of inadequate width abutting a property;
- (ii) Right-of-way that terminates at a property line; or
- (iii) Right-of-way that terminates at a T-intersection with a local street abutting the property line.
- **(b)** A special street setback is established wherever future right-of-way is shown in the Springfield Transportation System Plan, a refinement plan, or on an adopted Master Plan, Site Plan, Conceptual Development Plan, Subdivision or Partition for the width of the street shown on said plan, or as provided in Table 4.2.1(A) if no width is specified.
- (2) Buildings are not permitted within the special street setback specified in this section. Any portion of a building lawfully established within a special street setback prior to adoption of this ordinance is considered a non-conforming building subject to SDC 5.8.100.
- (3) The special street setbacks provided in Table 4.2.1(A) are based on the functional classification of the street as shown in the Springfield Transportation System Plan, including the Conceptual Street Map. Where a street is not shown in the Springfield TSP, including the Conceptual Street Map, the special setback for local streets applies.
- (4) The special setback provided in Table 4.2.1(A) is measured from the centerline of the existing or future street right-of-way as follows:
 - (a) Where partially-improved or unimproved right-of-way of inadequate width abuts a property line, the setback is measured from the location where the centerline would be if the street was fully improved in accordance with the improvement and dedication requirements in SDC 4.2.105(G)(1).
 - (b) Where right-of-way terminates at the property line or at a T-intersection on only one side of a property, the centerline is the straight line continuation of the centerline of the abutting right-of-way until it reaches the property line on the opposing side.
 - (c) Where right-of-way terminates at the property boundary on two sides, the centerline is the straight line between the points where the right-of-way centerlines intersect the property lines on each side.
 - (d) Where right-of-way terminates at the property line on one side and at a T-intersection on the other side, the centerline is the straight line from the right-of-way centerline intersection with the property line to the intersection of the existing street centerlines at the T-intersection.

- (e) Where right-of-way terminates at T-intersections on two sides of a property, the centerline is the straight line between the intersections of the existing street centerlines at each T-intersection.
- (5) Other yard or building setbacks are in addition to the special setbacks required by this section. Those setback distances must be measured at right angles to the street centerline specified above.

Table 4.2.1(A)
Special Street Setbacks

Street Classification	Setback Distance from the Centerline (1)				
Major Arterial	50'				
Minor Arterial	38'				
Major Collector	36′				
Minor Collector	35'				
Local Street, <15 percent slope	28.5′				
Local Street, ≥15 percent slope	28'				
Alley	10'				

(1) Where fully improved right-of-way abuts the property line of the subject property, the setback distance is one-half of the width of the existing, fully improved right-of-way.

Figure 4.2-B

Figure 4.2-C

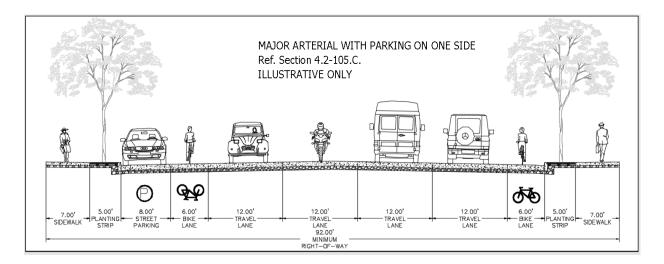


Figure 4.2-D

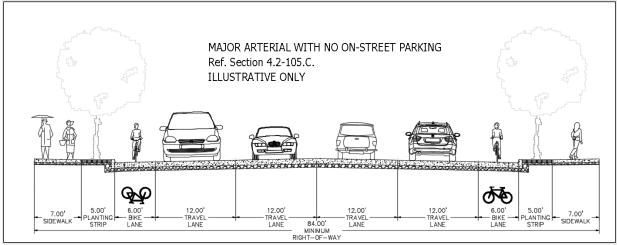


Figure 4.2-E

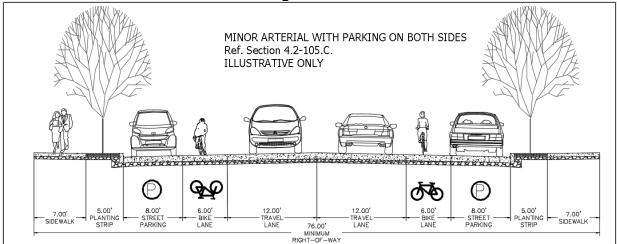


Figure 4.2-F

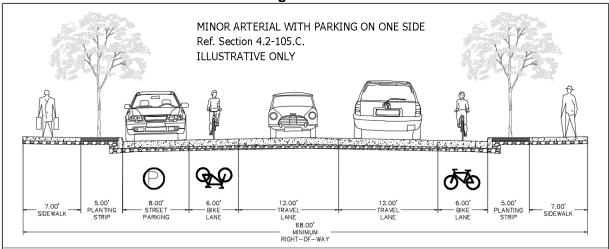


Figure 4.2-G

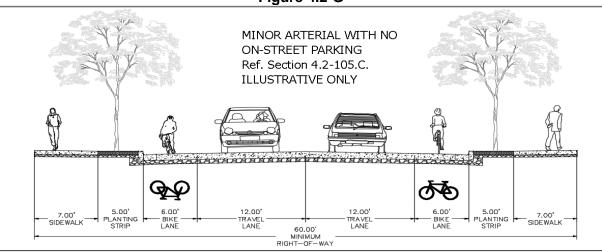


Figure 4.2-H

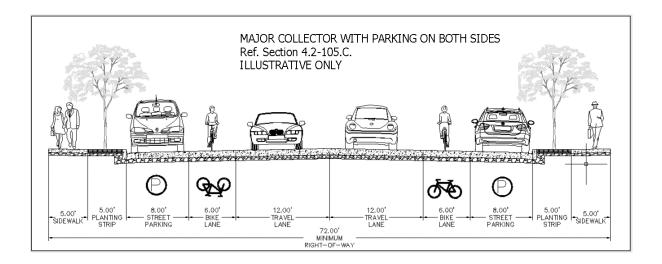


Figure 4.2-I

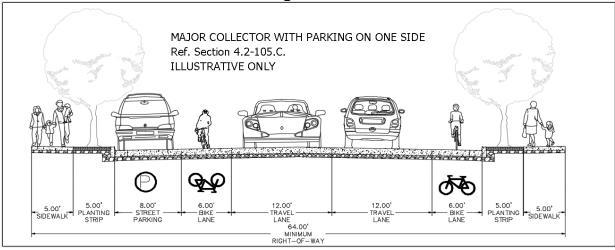


Figure 4.2-J

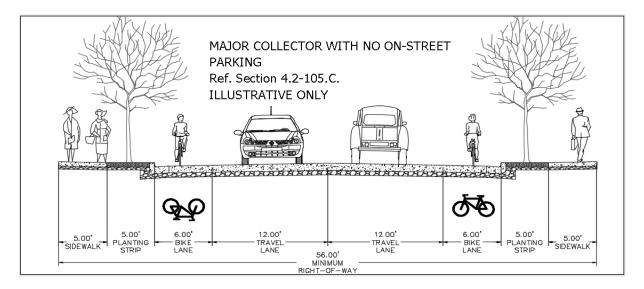


Figure 4.2-K

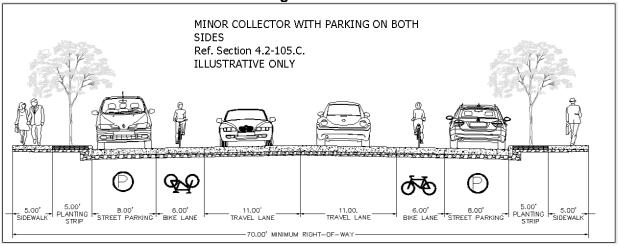


Figure 4.2-L

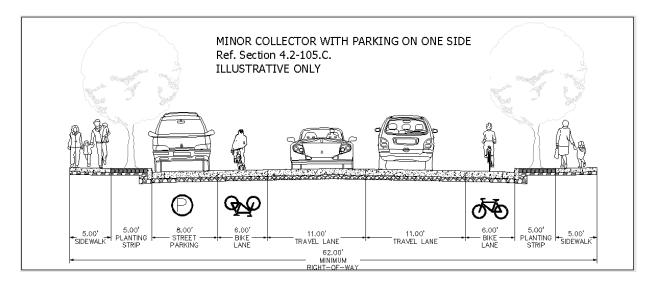


Figure 4.2-M

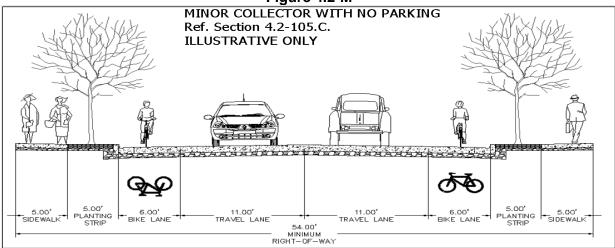


Figure 4.2-N

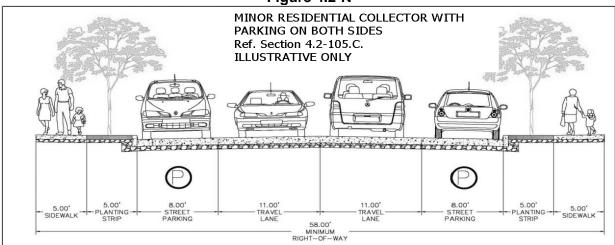


Figure 4.2-O

MINOR RESIDENTIAL COLLECTOR
WITH PARKING ON ONE SIDE
Ref. Section 4.2-105.C.
ILLUSTRATIVE ONLY

11.00

TRAVEL

MINIMUM RIGHT-OF-WAY 11.00

5.00

5.00

Figure 4.2-P

MINOR RESIDENTIAL
COLLECTOR WITH NO
PARKING
Ref. Section 4.2-105.C.
ILLUSTRATIVE ONLY

SIDEWALK

PLANTING
TRAVEL
A2.00'
MINIMUM
RIGHT-OF-WAY

RIGHT-OF-WAY

Figure 4.2-Q

5.00

5.00

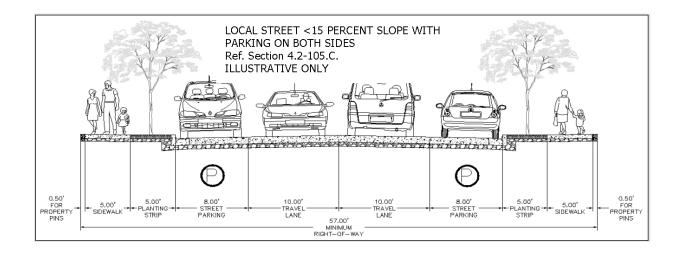


Figure 4.2-R

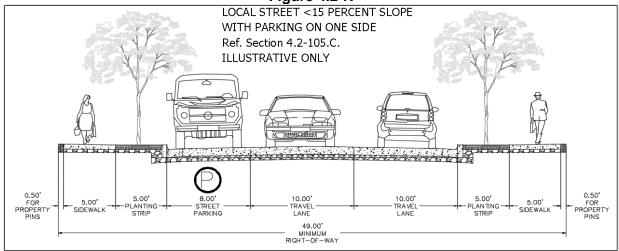


Figure 4.2-S

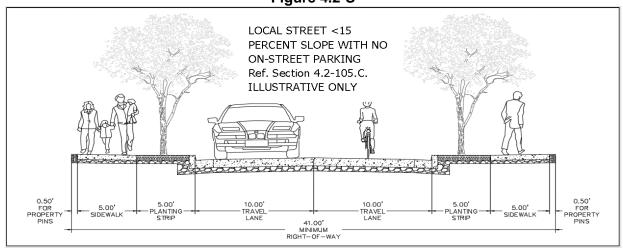


Figure 4.2-T

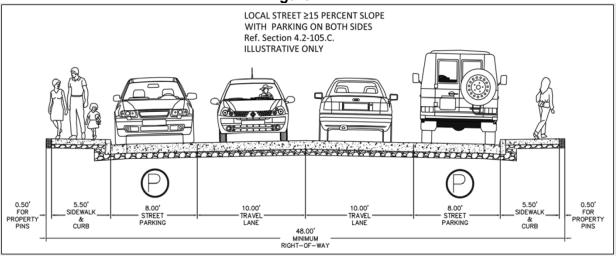


Figure 4.2-U

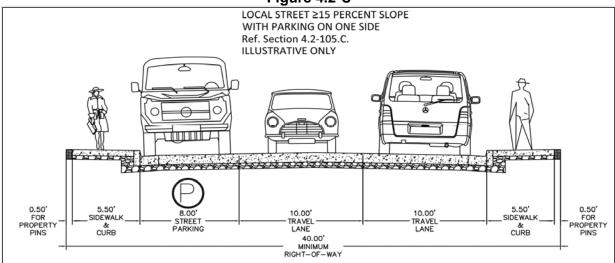
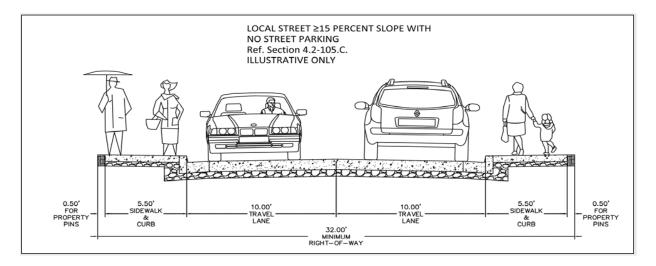


Figure 4.2-V



4.2.110 Private Streets

- (A) Private streets are permitted within the development area of Manufactured Dwelling Parks, Multiple Unit Housing development, and singularly owned commercial and industrial developments.
- (B) Private street improvements must meet the driveway standards in SDC 4.2.120(C) and must be constructed as specified in the *Engineering Design Standards and Procedures Manual* and in the Development & Public Works Standard Construction Specifications.
- **(C)** The Approval Authority will require a Homeowner's Agreement or other legal assurances acceptable to the City Attorney for the continued maintenance of private streets.

4.2.120 Site Access and Driveway Standards

(A) Site Access and Driveways—General

- (1) All developed lots or parcels are entitled to one approved driveway access provided by either direct access to a:
 - (a) Public street or alley along the frontage of the property; or
 - (b) Private street that connects to the public street system. The private street must be constructed as specified in SDC 4.2.110 (private streets are not be permitted in lieu of public streets shown on the Springfield Transportation System Plan, including the Conceptual Street Map); or

- **(c)** Public street by an irrevocable joint use/access easement serving the subject property that has been approved by the City Attorney, where:
 - (i) A private driveway is required in lieu of a panhandle driveway, as specified in SDC 3.2.220(B), or
 - (ii) Combined access for two or more lots/parcels is required to reduce the number of driveways along a street, as determined by the Director.
- (2) Single-unit detached dwellings and middle housing with frontage on a local street may have two more driveway accesses from the local street as follows:
 - (a) One driveway access that meets that standards in SDC Tables 4.2.2 through 4.2.5 is permitted per dwelling unit, including accessory dwelling units. These driveway accesses may be combined or consolidated.
 - (b) The lot or parcel may have one additional driveway serving an accessory structure, rear yard, or side yard that meets the standards in SDC Tables 4.2.2 through 4.2.5. The total driveway width across any frontage with two or more driveways must not exceed 32 feet.
- (3) For multiple unit housing, commercial land uses, public land uses, and industrial land uses, more than one driveway access from a local street to the development area may be permitted through a Type 2 approval process, when the additional driveway access or accesses do not conflict with public street functions and capacity and the design minimizes traffic conflicts.
- (4) Driveway access to designated State Highways is subject to the provisions of this Section in addition to requirements of the Oregon Department of Transportation (ODOT). Where City and ODOT regulations conflict, the more restrictive regulations apply.
- (5) As determined by the Director, sites with abutting parking areas within the same land use district may be required to provide driveway connections or pedestrian connections internal to the sites and joint access agreements to provide efficient connectivity and preserve public street functions and capacity.
- (B) Driveways must take access from lower classification streets when development sites abut more than one street and streets are of differing classification as identified in the Springfield Transportation System Plan except as allowed under this subsection.
 - (1) Driveway access to or from a higher classification street may be permitted through a Type 2 approval process if no reasonable alternative street access exists or where heavy use of local streets is inappropriate due to traffic impacts in residential areas, as follows:
 - (a) Where a proposed development abuts an existing or proposed arterial or collector street, the development design and off-street improvements must minimize the traffic conflicts.

- **(b)** Additional improvements or design modifications necessary to resolve identified transportation conflicts may be required on a case by case basis.
- (2) For single dwelling units, duplexes, and middle housing, no more than one driveway per lot or parcel is permitted along the frontage that abuts an existing or proposed arterial or collector street. Where more than one dwelling unit takes access from the existing or proposed arterial or collector street, driveways may be combined or consolidated consistent with the standards in SDC Tables 4.2.2 through 4.2.5.
- **(C)** Driveways must be designed to allow safe and efficient vehicular ingress and egress as specified in SDC Tables 4.2.2 through 4.2.5,the City's *Engineering Design Standards and Procedures Manual*, and the Development & Public Works Standard Construction Specifications.
 - (1) Existing driveways may be expanded up to the maximum dimensions permitted in SDC Tables 4.2.2 through 4.2.5 through a Type 1 approval process, provided that the driveway expansion does not require removal or relocation of any existing street trees, street lighting, or underground or above ground utilities and provided that the applicant obtains any applicable permit required to construct improvements in the public right of way.
 - (2) Driveway widths and throat depths may be varied outside of the standards in Table 4.2.2 through 4.2.5 through a Type 2 approval process if no other reasonable alternative exists to accommodate on-site development needs, if traffic safety is not impacted, and if the variance does not conflict with frontage improvements such as street trees, street lighting, and utility pedestals.
 - (3) Off-street vehicle parking is restricted to approved driveways and parking lots, and is not otherwise allowed between the street and primary building, consistent with Springfield Municipal Code Section 5.002(11).

Table 4.2.2

Driveway Design Specifications							
Land Use	Driveway Width		Transition Width	Driveway Separation	Paving Distance (2)(3)		
Single unit dwellings, duplexes and middle housing	12' minimum if serving one dwelling unit; 18' minimum if serving two or more dwelling units		3' required	1' minimum between outside edge of transitions	18' from property line minimum		
	30' maximum or 50% property frontage maximum, whichever is less			No maximum			
Land Use	1-Way Driveway Width	2-Way Driveway Width	Transition Width	Driveway Throat Depth (1)	Paving Distance (2)		
Multiple Unit Housing and Manufactured Dwelling Parks	12' min. 18' max.	24′ min. 35′ max.	5′ min. 8′ max.	18' min. No max.	Entire length of driveway		
Commercial/Public Land	12' min. 18' max.	24′ min. 35′ max.	8' min. No max.	18' min. No max.	Entire length of driveway		
Industrial	12' min. 18' max.	24′ min. 35′ max.	8' min. No max.	8′ min. No max.	Up to employee or customer parking area at minimum		

- (1) Driveway throat depth is measured from the face of curb to the first stall or aisle.
- (2) Driveways must be paved from the edge of existing street pavement to the property line.
- (3) Except for panhandle driveways and multiple unit housing driveways, a residential driveway abutting an unimproved gravel street may have a gravel surface until the abutting street is paved. Permeable pavement is allowed on a residential driveway consistent with standards in the City's Engineering Design Standards and Procedures Manual.

Table 4.2.3

Curb Return Driveway Design Specifications						
	Driveway Width (1)		Radius of Curb (2)		Driveway Throat Depth	
Land Use	Min.	Max.	Min.	Max.	Minimum (3)	
Multiple Unit Housing and	24 feet	30 feet	10 feet	20 feet	60 feet	
Manufactured Dwelling Parks						
Commercial/Public Land	24 feet	35 feet	15 feet	35 feet	60 feet	
Industrial	24 feet	35 feet	15 feet	35 feet	60 feet	

(1) Wider driveways may be permitted to accommodate traffic demands and/or to improve traffic safety.

- (2) Greater curb radii may be permitted where high volumes of large trucks are anticipated.
- (3) Measured from the face of the curb to the first stall or aisle.

Table 4.2.4

Minimum Separations Between a Driveway and the Nearest Intersection Curb Return on the Same Side of the Street (1)

	Street Type			
Land Use	Arterial	Collector	Local	
Single-Unit Dwellings, Duplexes, and Middle Housing	200 feet	50 feet	30 feet	
Multiple Unit Housing and Manufactured Dwelling Parks	200 feet	100 feet	75 feet	
Commercial/Public Land	200 feet	100 feet	75 feet	
Industrial	200 feet	200 feet	150 feet	

- (1) Each category of street is considered separately. Distances may be reduced in the following circumstances:
 - (a) Access is from a one-way street.
 - (b) The driveway is marked for "right-in-right-out only."
 - (c) The driveway is marked "exit only" and is designed to prevent left turns.
 - (d) In cases where an existing lot or parcel and/or use make compliance with these specifications unreasonable, a new driveway or an existing driveway required to be relocated by this Code must be placed at the furthest point from the intersection curb return, considering both safety and internal circulation requirements of the development.

4.2.125 Intersections

Intersections must be designed and constructed as specified in the *Engineering Design Standards and Procedures Manual* and the following requirements.

- (A) In order to minimize traffic conflicts and provide for efficient traffic signalization, intersections involving curb return driveways and streets, whether public or private, must be directly opposed, unless a Traffic Impact Study indicates that an offset intersection benefits public safety to a greater degree.
- (B) Streets must be laid out to intersect as nearly as possible at right angles. The angle of intersection between two intersecting streets must be at least 80 degrees. At intersections, each local street must be straight or have a radius greater than 400 feet for a distance of 100 feet from each intersection. At intersections, each collector or arterial street must be straight or have a radius greater than 600 feet for a distance of 100 feet from each intersection.

4.2.130 Vision Clearance Area

(A) All lots or parcels must maintain a Vision Clearance Area to provide sight distance for approaching traffic. Vision clearance areas must be shown on Site Plans for applicable land use applications.

- **(B)** No screens, plantings, or other physical obstructions are permitted between two and a half and eight feet above the established height of the curb in the Vision Clearance Area.
 - Items associated with utilities or publicly-owned structures—for example, poles, and signs, and existing street trees—may be permitted.
- (C) The Vision Clearance Area must be in the shape of a triangle. Two sides of the triangle must be property lines or a property line and edge of driveway for a distance specified in this Subsection. Where the property lines or driveway edge have rounded corners, they are measured by extending them in a straight line to a point of intersection. The third side of the triangle is a line across the corner of the lot or parcel joining the non-intersecting ends of the other two sides. The following measurements establish the Vision Clearance Area:

Table 4.2-5

Type of Intersection	Measurement Along Each Property Line
Any Street	20 feet
Any Alley	15 feet
Any Driveway	10 feet

The Director may require that the Vision Clearance Area be increased to be consistent with the sight distance standards and requirements in the AASHTO "A policy on Geometric Designs of Highways and Streets" when safety concerns warrant the increase.

4.2.135 Sidewalks

- (A) Sidewalks and planter strips abutting public streets must be located wholly within the public street right-of-way. Alternatively, the applicant may propose a design that does not meet this standard, subject to Director approval through a Type 2 approval process. In approving an alternative, the Director may require alternative setbacks or driveway paving requirements that reflect the altered position and location of the sidewalk.
- **(B)** Sidewalks must be designed, constructed, replaced, or repaired as specified in the *Engineering Design Standards and Procedures Manual*, the Development & Public Works Standard Construction Specifications, and the Springfield Municipal Code.
- (C) Concrete sidewalks must be provided according to SDC 4.2.105(C), Table 4.2.1, and the following criteria:
 - (1) Sidewalks must conform to the existing or planned street grades.
 - (2) Sidewalks must conform to current ADA standards.
 - (3) Sidewalks must be separated from the curb by the planting strip. Alternatively, sidewalks may be proposed to not meet this standard when necessary for

- connectivity, safety, or to comply with street design requirements subject to approval by the Director.
- (4) New sidewalk width and type must be consistent with existing sidewalk design in the same block, but must physically transition to comply with current sidewalk standards. When replacing damaged sidewalk, new sidewalk must be located in the same position as the existing sidewalk.
- (5) Facilities including, but not limited to, mail boxes, water meters, valves, junction boxes, manholes, utility poles, trees, benches, fire hydrants, signs, and bus stops must not be located within the sidewalk, and must be removed or relocated prior to the construction or reconstruction of the sidewalk. Alternatively, the City Engineer may approve an alternative design to this standard if at least five feet of unobstructed width on arterial class streets and four feet on all other streets will remain around the facility.
- (D) Planter strips are required as part of sidewalk construction. Planter strips must be at least four and a half feet wide (as measured from the back of curb to the edge of the sidewalk) and at least four and a half feet long. Planter strips must have approved landscaping consisting of street trees and ground cover allowed per the *Engineering Design Standards* and *Procedures Manual*. Tree wells set in concrete or sidewalk areas must be a minimum of four feet by four feet. Concrete, asphalt, or other impermeable pavement are not allowed to substitute for landscaping within planter strips.

Planter strips less than four and a half feet wide may be permitted when necessary for connectivity, safety, or to comply with street design requirements, subject to approval by the Director.

(E) Maintenance of sidewalks is the continuing obligation of the abutting property owner.

4.2.140 Street Trees

Street trees are those trees required within the public right-of-way. The primary purpose of street trees is to create a streetscape that benefits from the aesthetic and environmental qualities of an extensive tree canopy along the public street system. Street trees are attractive amenities that improve the appearance of the community, provide shade and visual interest, and enhance the pedestrian environment. Street trees also improve air quality, reduce stormwater runoff, and moderate the micro-climate impacts of heat absorbed by paved surfaces. Street trees may be located within a planter strip or within individual tree wells in a sidewalk, round-about, or median.

In order to meet street tree requirements where there is no planter strip and street trees cannot be planted within the public right-of-way, trees must be planted in the required front yard or street side yard setback of private property as specified in the applicable land use district.

(A) New Street Trees. New street trees must be a minimum of two inch (dbh) caliper. New street trees must be selected from the City Street Tree List contained in Appendix 6A,

Approved Street Tree List, in the *Engineering Design Standards and Procedures Manual* and installed as specified in Chapter 6 of the *Engineering Design Standards and Procedures Manual*.

(B) Existing Street Trees

(1) Street Tree Retention Standards. Existing trees may meet the requirement for street trees (i.e., trees on the City Street Tree List specified in the *Engineering and Design Standards and Procedures Manual* with a minimum caliper of two inches) if there is no excavation or filling for proposed development within the dripline of the tree. Sidewalks of variable width, elevation, and direction may be used to save existing trees, subject to approval by the Director.

Existing street trees must be retained as specified in the *Engineering Design Standards and Procedures Manual*. Alternatively, existing street trees may be approved for removal through a land use decision or in conjunction with a street construction project based on the following street tree removal standards.

(2) Street Tree Removal Standards

- (a) City removal of existing street trees within the public right-of-way is exempt from the tree felling regulations specified in SDC 5.19.100.
- **(b)** Existing street trees on private property cannot be removed without prior authorization or direction as provided in Springfield Municipal Code 5.050, or as approved through a Type 2 or Type 3 review. Removal of five or more street trees on private property is subject to the tree felling standards specified in SDC 5.19.100.
- **(c)** Existing street trees on private property must not be removed to accommodate additional or expanded driveways.
- (3) Street Tree Replacement Standards. Any street tree proposed to be removed must be replaced with a tree at least two inches in caliper.
 - (a) It is the responsibility of the City to plant any replacement tree within the public right-of-way.
 - (b) It is the responsibility of the property owner to plant any replacement street tree on private property, either as a condition of a Tree Felling Permit or when the property owner removes a street tree on private property without the City's authorization. Any replacement street tree must meet the standards specified in Subsection (A), above.
 - (c) Whenever the property owner removes a street tree within the public right-ofway without the City's authorization, that person is responsible for reimbursing

the City for the full value of the removed tree, to include replanting and watering during the two year tree establishment period.

(C) Street Tree Maintenance Responsibility

- (1) Maintenance of street trees in the public right-of-way is performed by the City.
- (2) Maintenance of street trees on private property must be performed by the property owner.
- (3) Removal of street trees on private or public property does not constitute maintenance.

4.2.145 Lighting Standards

Lighting design and placement for streets, paths, and accessways must conform to the following design standards and the Development & Public Works Standard Construction Specifications.

This section does not apply to on-site lighting standards that are regulated by Section 4.5-100.

(A) Lighting must be included with all new developments or redevelopment. Existing lighting must be upgraded to current standards with all new developments or redevelopment. The developer is responsible for lighting material and installation costs.

(B) Design Standards

- (1) Lighting must comply with Illuminating Engineering Society, American National Standards Practice for Roadway Lighting RP-8-14 and applicable National Electrical Safety Code (NESC) and National Electrical Code (NEC) standards.
- (2) Intersections must be illuminated to a level equal to the sum of the average required illuminance of the two intersecting streets.
- (3) Mid-block crosswalks must have two times the illumination required for the street.
- (4) Decorative poles with City-approved LED fixtures and lighting controls must be used on all streets within the Nodal Development Overlay District and where any refinement plan or plan district requires decorative lighting. The developer may request to install decorative poles on streets, paths, and accessways in any other zone at the as part of an underlying Type 2 or Type 3 application, which approval is at the discretion of the Approval Authority.
- (5) City-approved LED fixtures and lighting controls must be used when lighting is required along multi-use paths and accessways.
- (6) Roadway style poles and "cobra head" fixtures with City-approved LED fixtures and lighting controls must be used along streets in all other locations.

- (7) When roadway style poles are used on arterial and collector streets in any zone other than residential, they must be steel or aluminum. When roadway style poles are used on local and collector streets in residential zones, they must be fiberglass, steel, or aluminum.
- (8) Where lot frontages are 80 feet or less, light poles must be located at property lines unless approved by the Director.
- (9) The weak point illumination must not be less than 0.1 foot candles.
- (10) Roadway style light poles set behind sidewalks must have eight foot arm length. Roadway style light poles set between curb and sidewalk or where no sidewalk exists must have six foot arm length.
- (11) Light pole handholes must be used instead of junction boxes. However, junction boxes for street lighting may be utilized for street crossings or where necessary to comply with electrical code standards cited above.

(12) Pole Height

- (a) Lights on arterial and collector streets outside of a residential zone must have a 35-foot fixture mounting height.
- (b) Lights on local streets with a curb-to-curb width of 28 feet or greater and collectors within residential zones must have a 30-foot fixture mounting height.
- (c) Lights on local streets with a curb-to-curb width of less than 28 feet must have a 20-foot fixture mounting height.
- (d) Decorative light poles must be 12 feet tall. Alternatively, 16-foot tall decorative poles may be used if approved by the Director when the required illumination levels cannot be achieved with 12-foot tall decorative poles.
- (e) Lighting on local streets must be installed on the same side of the street and on the side of the street first constructed. Alternatively, where necessary to be consistent with the existing lighting design and placement the Director may approve an alternative to this standard through a Type 2 process.
- (f) Light poles must not be placed on the outside of curves with less than a 1,000-foot radius.

4.2.150 Multi-Use Paths

(A) Development abutting an existing or proposed multi-use path identified in the Springfield Transportation System Plan (including the Conceptual Street Map), City-adopted bicycle and pedestrian plan, or the adopted Willamalane Park and Recreation District Comprehensive Plan must include provisions for the extension of the multi-use path

- through the development area by the dedication of public easements or rights-of-way. The developer bears the cost of multi-use path improvements.
- (B) Multi-use paths that are dedicated as right-of-way or in a public easement must conform to the Oregon Bicycle and Pedestrian Plan, the Oregon Bike and Pedestrian Design Guidelines, AASHTO guidelines, this Code, and the *Engineering Design Standards and Procedures Manual*.
- (C) The right-of-way or easement area for a multi-use path must include a minimum paved area of 10 feet, a minimum clear zone of two feet on both sides of the path, and any additional width necessary to accommodate lighting required under this Section.
- (D) Where a multi-use path runs parallel and adjacent to a public street, the multi-use path must be separated from the edge of the street by a width of at least five feet or by a physical barrier that meets the standards in the Oregon Bike and Pedestrian Design Guidelines, AASHTO guidelines, or the National Association of City Transportation Officials Urban Bikeway Design Guide.
- (E) Lighting for multi-use paths must be installed according to the standards in SDC 4.2.145. Lighting must not obstruct the paved surface or two-foot clear area on either side. All lighting must be installed within the right-of-way or public easement area.

4.2.160 Accessways

(A) Accessways allow pedestrians and bicyclists convenient linkages to adjacent streets, residential areas, neighborhood activity centers, industrial or commercial centers, transit facilities, parks, schools, open space, or trails and paths where no public street access exists. Accessways may also be used as a secondary emergency access. Accessways must be dedicated as public right-of-way during the development review process.

When site constraints preclude the ability to dedicate right-of-way without impacting setback requirements or other development standards, the Director may authorize dedication of a public easement or may otherwise modify the standards in this Section through a land use decision.

- **(B)** Accessways must comply with the following design standards:
 - (1) Where an accessway is proposed for only bicycle and/or pedestrian travel, the right-of-way must be 12 feet wide, with a 10 foot wide paved surface of either asphalt concrete or Portland Cement concrete consistent with the construction standards for accessways in the Springfield Construction Specifications. Light standards may be installed within travel path, as long as a minimum eight foot wide clear path is maintained.
 - (2) Where an accessway is proposed as a secondary access for emergency vehicles or in combination with bicycle and/or pedestrian travel, the right-of-way must be a minimum of 24 feet wide; consisting of a 12-foot wide area paved with either asphalt

concrete or Portland Cement concrete and two additional four-foot wide areas on both sides that are turf block, grass-crete, or other similar permeable material, as determined by the Approval Authority, on a base of gravel capable of supporting fire equipment weighing 80,000 pounds. Light standards must be installed outside the 20-foot travel path, but within the public right-of-way.

- (3) Illumination for accessways must be installed in accordance with SDC 4.2.145.
- (C) When a development subject to Type 2 or Type 3 procedures will increase pedestrian travel to or from the development area, the Director may require improvements to existing unimproved accessways abutting or adjacent to the property proposed to be developed. Where possible, the improvements to unimproved accessways must continue to the closest public street or improved accessway. The developer bears the cost of accessway improvements unless other property owners are benefited. In this case, other equitable means of cost distribution may be approved by the City. Where possible, accessways may also be employed to accommodate public utilities.